CLAIMS:

1. A device (201) for scanning an optical disc (202), the disc (202) comprising a pattern (203) of substantially parallel data tracks, the device (201) comprising

an optical pick up unit (204) for creating, from a light beam (206), a spot 208 on a data track of the pattern (203);

means (209) for moving the spot (208) relative to the pattern (203);

means (210) for determining a radial tracking error signal, the radial tracking error signal indicating a deviation of the spot (208) relative to the data track, the means (210) for determining the radial tracking error signal being arranged for determining a periodic signal (31, 32, 41, 42) from the radial tracking error signal while the spot (208) is radially moving across the pattern (203), a period of the periodic signal (31, 32, 41, 42) corresponding to a pitch of the data tracks; and

means (211) for detecting a tilt angle (214) between an optical axis of the pick up unit and the optical disc (202), the means (211) for detecting the tilt angle (214) being arranged for detecting an asymmetry in the periodic signal (31, 32, 41, 42) during the period.

2. The device (201) as claimed in claim 1, wherein the means (211) for detecting the tilt angle (214) is arranged for integrating the periodic signal (31, 32, 41, 42) over an integer number of periods.

3. The device (201) as claimed in claim 1, wherein the means for detecting the tilt angle (214) is arranged for determining a shift of a zero crossing of the periodic signal (31, 32, 41, 42).

4. The device (201) as claimed in claim 1, further characterized in that the means for determining the radial tracking error signal is arranged for determining a radial push pull (RPP) signal or a differential time detection (DTD) signal.

5. The device (201) as claimed in claim 1, wherein the means (208) for moving the spot (209) comprises an actuator for radially moving the pick up unit (204) across the pattern (203), while the disc (202) is in a stationary position.

6. The device (201) as claimed in claim 1, wherein the means (209) for moving the spot (208) comprises means for rotating the disc (202), while the pick up unit (204) is in a stationary position.

7. The device (201) as claimed in claim 1, wherein the means (209) for moving the spot (208) comprises means for rotating the disc (202) and an actuator for radially moving the pick up unit (204) across the pattern (203), while the disc (202) is rotating.

8. The device (201) as claimed in claim 1, further comprising means (701) for memorizing detected tilt angles (214) for positions on the disc (202) and means (702) for creating a tilt map of the optical disc (202) depending on memorized tilt angles (214).

9. The device (201) as claimed in claim 7, further comprising
a memory (703) for storing models of tilted discs (202);
means (704) for comparing the memorized tilt angles (214) to the models for selecting an appropriate model, which model resembles the disc (202);
and wherein the means (702) for creating the tilt map are arranged for creating a tilt map depending on the memorized tilt angles (214) and the appropriate model.

10. A method for detecting a tilt angle (214) of a part of an optical disc (202), the method comprising the steps of
moving a light spot (208) radially across a pattern (203) of substantially parallel data tracks on the optical disc (202);
determining a periodic signal (31, 32, 41, 42) from a radial tracking error signal during moving the spot (208) radially across the pattern (203), the radial tracking error signal indicating a deviation of the spot (208) relative to a data track, a period of the periodic signal (31, 32, 41, 42) corresponding to a pitch of the data tracks; and
detecting an asymmetry in the periodic signal (31, 32, 41, 42) during the period for detecting the tilt angle (214) of the part of the optical disc (202).

11. A computer program product operative to cause a processor to perform the method of claim 10.